Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

1. (Previously Presented) A dielectric material comprising a plurality of single-wall carbon nanotubes coated at least in part with a polymer molecule, wherein the polymer-coated single-wall carbon nanotubes are substantially electrically-isolated from one another.

2. (Cancelled)

3. (Original) A dielectric material in accordance with claim 1, wherein the single-wall carbon nanotubes are smaller on average in their circumference than the average length of the individual polymer molecules.

4. (Original) A structure comprising a dielectric material in accordance with claim 1, wherein the structure is selected from the group consisting of capacitor dielectrics, circuit board materials, waveguide materials, optical index-matching materials, electromagnetic radiation absorbing materials, electromagnetic radiation re-directing materials, optoelectronic materials, antenna arrays, materials for suspending antennas, electrically-loading antennas, and supports of antenna arrays.

5. (Original) A dielectric material in accordance with claim 1, wherein the polymer-coated single-wall carbon nanotubes are embedded in a polymer matrix.

6. (Original) A dielectric material in accordance with claim 5, wherein the polymer matrix is an electrically-insulating polymer material.

7. (Cancelled)

8. (Original) A dielectric material in accordance with claim 1, wherein a dielectric constant of said dielectric material is at least about 10.

9. (Original) A dielectric material in accordance with claim 1, wherein a dielectric constant of said dielectric material is at least about 100.

10. (Original) A dielectric material in accordance with claim 1, wherein a dielectric constant of said dielectric material is at least about 500.

11. (Previously Presented) A dielectric material comprising a plurality of aggregates of single-wall carbon nanotubes, wherein the aggregates are coated at least in part with a polymer molecule and wherein the aggregates of single-wall carbon nanotubes are substantially electrically-isolated from one another.

12. (Previously Presented) A dielectric material in accordance with claim 11, wherein the aggregates of single-wall carbon nanotubes comprise ropes of single-wall carbon nanotubes in which the nanotubes are substantially aligned along the longitudinal axes of the ropes.

13. (Previously Presented) A dielectric material in accordance with claim 11, wherein the aggregates of single-wall carbon nanotubes comprise bundles of single-wall carbon nanotubes in which the nanotubes are substantially aligned along the longitudinal axes of the bundles.

14. (Cancelled)

15. (Original) A dielectric material in accordance with claim 11, wherein the aggregates of single-wall carbon nanotubes are smaller on average in their circumference than the average length of the individual polymer molecules.

16. (Original) A structure comprising a dielectric material in accordance with claim 11, wherein the structure is selected from the group consisting of capacitor dielectrics, circuit board materials, waveguide materials, optical index-matching materials, electromagnetic radiation absorbing materials, electromagnetic radiation re-directing materials, optoelectronic materials, antenna arrays, materials for suspending antennas, electrically-loading antennas, and supports of antenna arrays.

17. (Original) A dielectric material in accordance with claim 11, wherein the polymer-coated aggregates of single-wall carbon nanotubes are embedded in a polymer matrix.

18. (Original) A dielectric material in accordance with claim 17, wherein the polymer matrix is an electrically-insulating polymer material.

19. (Cancelled)

20. (Original) A structure comprising a dielectric material in accordance with claim 17, wherein the structure is selected from the group consisting of capacitor dielectrics, circuit board materials, waveguide materials, optical index-matching materials, electromagnetic radiation absorbing materials, electromagnetic radiation re-directing materials, optoelectronic materials, antenna arrays, materials for suspending antennas, electrically-loading antennas, and supports of antenna arrays.

21. (Original) A dielectric material in accordance with claim 11, wherein a dielectric constant of said dielectric material is at least about 10.

22. (Original) A dielectric material in accordance with claim 11, wherein a dielectric constant of said dielectric material is at least about 100.

23. (Original) A dielectric material in accordance with claim 11, wherein a dielectric constant of said dielectric material is at least about 500.

24. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a plurality of coated single-wall carbon nanotubes, wherein the coated single-wall carbon nanotubes are coated at least in part with a polymer molecule; and ~~wherein~~

(b) contacting a species with the coated single-wall carbon nanotubes to effect a chemical adsorption of the species on the surface of the coated single-wall carbon nanotubes, wherein the coated single-wall carbon nanotubes change dimensionally, ~~and~~ electronically, or both in response to the chemical adsorption ~~on the surface of the nanotube~~.

25. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 24, wherein the coated single-wall carbon nanotubes are part of ~~structure is~~ a chemical sensor that responds to at least one of (i) the dimensional change of the coated single-wall carbon nanotubes and (ii) the electronic change of the coated single-wall carbon nanotubes.

26. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 24, wherein the coated single-wall carbon nanotubes are part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the coated single-wall carbon nanotubes and (ii) the electronic change of the coated single-wall carbon nanotubes.

27. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting aggregates of coated single-wall carbon nanotubes, wherein the aggregates of coated single-all carbon nanotubes are coated at least in part with a polymer molecule; and ~~wherein~~

(b) contacting a species with the coated aggregates of single-wall carbon nanotubes to effect a chemical adsorption of the species on the surface of the coated aggregates of single-wall carbon nanotubes, wherein the coated aggregates of single-wall carbon nanotubes change dimensionally, electronically, or both in response to the chemical adsorption ~~on the surface of the nanotubes~~.

28. (Currently Amended) ~~A composition of matter~~ The method in accordance with claim 27, wherein the coated aggregates of single-wall carbon nanotubes comprise ropes ~~nanotube aggregate comprises a rope~~ of single-wall carbon nanotubes in which the single wall carbon nanotubes in the ropes are substantially aligned along their longitudinal axes.

29. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 27, wherein the coated aggregates of single-wall carbon nanotubes are part of ~~structure is~~ a chemical sensor that responds to at least one of (i) the dimensional change of the coated single-wall carbon nanotubes and (ii) the electronic change of the coated single-wall carbon nanotubes.

30. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 27, wherein the coated aggregates of single-wall carbon nanotubes are part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the coated single-wall carbon nanotubes and (ii) the electronic change of the coated single-wall carbon nanotubes.

31-34. (Cancelled)

35. (Currently Amended) A ~~fluid~~ method comprising:

(a) selecting a fluid comprising a dispersion of a plurality of single-wall carbon nanotubes coated at least in part with a polymer;~~, whereby the viscosity of the fluid is capable of being controlled by application of~~ and

(b) controlling the viscosity of the fluid by applying to the fluid a field selected from the group consisting of an electric field, a magnetic field and combinations thereof.

36. (Currently Amended) A ~~fluid~~ method comprising:

(a) selecting a fluid comprising a dispersion of a plurality of aggregates of single-wall carbon nanotubes, wherein the aggregates are coated at least in part with a polymer; ~~and, whereby the viscosity of the fluid is capable of being controlled by application of~~ and

(b) controlling the viscosity of the fluid by applying to the fluid a field selected from the group consisting of an electric field, a magnetic field and combinations thereof.

37. (Currently Amended) A ~~fluid~~ method in accordance with claim 36, wherein the aggregates of single-wall carbon nanotubes comprise ropes ~~nanotube aggregate comprises a rope~~ of single-wall carbon nanotubes in which the single-wall carbon nanotubes in the ropes are substantially aligned along their longitudinal axes.

38. (Currently Amended) A ~~fluid~~ method in accordance with claim 36, wherein the aggregates of single-wall carbon nanotubes comprise bundles ~~nanotube aggregate comprises a bundle~~ of single-wall carbon nanotubes in which the single-wall carbon nanotubes in the bundles are substantially aligned along their longitudinal axes.

39. (Cancelled)

40. (Currently Amended) A film comprising a plurality of aggregates of single-wall carbon nanotubes, wherein:

(a) the aggregates of single-wall carbon nanotubes are coated at least in part with a polymer; and

(b) the film is a dielectric material, wherein the aggregates of single-wall carbon nanotubes are substantially electrically-isolated from one another.

41. (Original) A film in accordance with claim 40, wherein the single-wall carbon nanotube aggregate comprises a rope of single-wall carbon nanotubes in which the nanotubes are substantially aligned along their longitudinal axes.

42. (Original) A film in accordance with claim 41, wherein the single-wall carbon nanotube aggregate comprises a bundle of single-wall carbon nanotubes in which the nanotubes are substantially aligned along their longitudinal axes.

43. (Cancelled)

44. (Currently Amended) A fiber comprising a plurality of aggregates of single-wall carbon nanotubes, wherein:

(a) the aggregates of single-wall carbon nanotubes are coated at least in part with a polymer; and

(b) the fiber is a dielectric material, wherein the aggregates of single-wall carbon nanotubes are substantially electrically-isolated from one another.

45. (Original) A fiber in accordance with claim 44, wherein the single-wall carbon nanotube aggregate comprises a rope of single-wall carbon nanotubes in which the nanotubes are substantially aligned along their longitudinal axes.

46. (Original) A fiber in accordance with claim 44, wherein the single-wall carbon nanotube aggregate comprises a bundle of single-wall carbon nanotubes in which the nanotubes are substantially aligned along their longitudinal axes.

47-50. (Cancelled)

51. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a plurality of coated single-wall carbon nanotubes, wherein the coated single-wall carbon nanotubes are coated at least in part with a polymer molecule; and

(b) applying an electric field, wherein the coated single-wall carbon nanotubes change ~~composition changes~~ dimensionally, electronically, or both in response to ~~an~~ the applied electric field.

52. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 51, wherein the coated single-wall carbon nanotubes are part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the coated single-wall carbon nanotubes and (ii) the electronic change of the coated single-wall carbon nanotubes.

53. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a composition comprising a plurality of coated single-wall carbon nanotubes, wherein the coated single-wall carbon nanotubes are coated at least in part with a polymer molecule; and

(b) applying a magnetic field, wherein the composition changes dimensionally, electronically, or both in response to ~~an~~ the applied magnetic field.

54. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 53 wherein the composition is part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.

55. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a composition comprising a plurality of coated single-wall carbon nanotubes, wherein the coated single-wall carbon nanotubes are coated at least in part with a polymer molecule; and

(b) contacting a species with the composition to effect a chemical adsorption of the species on the surface of the coated single-wall carbon nanotubes, wherein the coated single-wall carbon nanotubes change ~~changes~~ dimensionally, electronically, or both in response to the chemical adsorption ~~on the surface of the nanotubes~~.

56. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in

accordance with claim 55, wherein the composition is part of ~~structure is~~ a chemical sensor that responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.

57. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 55, wherein the composition is part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.

58. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a composition comprising coated aggregates of single-wall carbon nanotubes, wherein the coated aggregates of single-wall carbon nanotubes are coated at least in part with a polymer molecule; and ~~wherein~~

(b) contacting a species with the composition ~~changes~~ to effect a chemical adsorption of the species on the surface of the coated aggregates of single-wall carbon nanotubes, wherein the coated aggregates of single-wall carbon nanotubes change dimensionally, electronically, or both in response to the chemical adsorption ~~on the surface of the nanotubes~~.

59. (Currently Amended) ~~A composition of matter~~ The method in accordance with claim 58, wherein the coated aggregates of single-wall carbon nanotubes comprise ropes of single-wall carbon nanotubes in which the single-wall carbon nanotubes are substantially aligned along the longitudinal axes of the ropes.

60. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 58, wherein the composition is part of ~~structure is~~ a chemical sensor that responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.

61. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim ~~55~~ 58, wherein the composition is part of ~~structure is~~ a transducer that

responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.

62. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a composition comprising coated aggregates of single-wall carbon nanotubes, wherein the coated aggregates of single-wall carbon nanotubes are coated at least in part with a polymer molecule; and

(b) applying an electric field, wherein the composition changes dimensionally, electronically, or both in response to ~~an~~ the applied electric field.

63. (Currently Amended) ~~A composition of matter~~ The method in accordance with claim 62, wherein the coated aggregates of single-wall carbon nanotubes comprise ropes of single-wall carbon nanotubes in which the single-wall carbon nanotubes are substantially aligned along the longitudinal axes of the ropes.

64. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 62, wherein the composition is part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.

65. (Currently Amended) A ~~composition of matter~~ method comprising:

(a) selecting a composition comprising coated aggregates of single-wall carbon nanotubes, wherein the coated aggregates of single-wall carbon nanotubes are coated at least in part with a polymer molecule; and

(b) applying a magnetic field, wherein the composition changes dimensionally, electronically, or both in response to ~~an~~ the applied magnetic field.

66. (Currently Amended) ~~A composition of matter~~ The method in accordance with claim 65, wherein the coated aggregates of single-wall carbon nanotubes comprise ropes of single-wall carbon nanotubes in which the single-wall carbon nanotubes are substantially aligned along the longitudinal axes of the ropes.

67. (Currently Amended) ~~A structure comprising a composition of matter~~ The method in accordance with claim 65, wherein the composition is part of ~~structure is~~ a transducer that responds to at least one of (i) the dimensional change of the composition and (ii) the electronic change of the composition.